



Amendments to the Claims:

The listing of the claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1 (canceled).

Claim 2 (currently amended): A The method according to claim ~~1~~ 21, wherein, during the at least one mechanical adjustment process ~~(41)~~, the welding parameters are controlled in a manner that no or only little welding wire material melting is effected.

Claim 3 (currently amended): A The method according to claim ~~1~~ 21, wherein, during the at least one mechanical adjustment process ~~(41)~~, contacting of the welding wire ~~(13)~~ with ~~the~~ a workpiece ~~(16)~~ is effected by moving the welding wire ~~(13)~~ towards the workpiece ~~(16)~~.

Claim 4 (currently amended): A The method according to claim 3, wherein, during the movement of the welding wire ~~(13)~~ towards the workpiece ~~(16)~~, the welding parameters are controlled in a

manner that the electric arc (15) is maintained until immediately before the contacting of the welding wire (13) with the workpiece (16) while avoiding melting of the welding wire (13).

Claim 5 (currently amended): A The method according to claim 3, wherein contacting of the welding wire (13) with the workpiece (16) is detected ~~via the recognition of~~ when a short circuit is recognized.

Claim 6 (currently amended): A The method according to claim 5, wherein, after the detection of said contacting, ~~the position~~ of the end of the welding wire is reset to a zero position.

Claim 7 (currently amended): A The method according to claim 3, wherein, the welding wire (13) is moved back after contacting with the workpiece. (16)

Claim 8 (currently amended): A The method according to claim 3, wherein, after contacting of the welding wire (13) with the workpiece (16), the welding wire 13 is moved away from the workpiece (16) to a fixedly pregiven or adjustable distance (32) relative to the ~~same~~ workpiece.

Claim 9 (currently amended): A The method according to claim 8, wherein said distance ~~(32)~~ is determined via the welding voltage (U), the welding current (I) or the time (t) during the movement of the welding wire ~~(13)~~.

Claim 10 (currently amended): A The method according to claim ~~1~~ 21, wherein the at least one mechanical adjustment process ~~(41)~~ is initiated by settings selected by the user or by fixed defaults.

Claim 11 (currently amended): A The method according to claim ~~1~~ 21, wherein the at least one mechanical adjustment process ~~(41)~~ is initiated by a trigger signal.

Claim 12 (currently amended): A The method according to claim ~~1~~ 21, wherein the at least one mechanical adjustment process ~~(41)~~ is initiated at defined times, after ~~the~~ expiration of defined time intervals or after ~~the~~ expiration of a defined number of welding process pulses.

Claim 13 (currently amended): A The method according to claim ~~1~~ 21, wherein the wire is advanced at a wire advance speed (V) and the wire advance speed is increased during the at least one mechanical adjustment process ~~(41)~~.

Claim 14 (currently amended): A The method according to claim ~~1~~ 21, wherein the at least one mechanical adjustment process ~~(41)~~ is carried out during a base current phase ~~(35)~~ of the welding process.

Claim 15 (currently amended): A The method according to claim ~~1~~ 21, wherein the welding wire has a length of the welding wire (13) through which welding current flows and said length is measured during the at least one mechanical adjustment process ~~(41)~~.

Claim 16 (currently amended): A The method according to claim ~~1~~ 21, wherein the electric arc ~~(15)~~ is newly ignited during the at least one mechanical adjustment process ~~(41)~~ as the welding wire ~~(13)~~ is lifted off the workpiece ~~(16)~~.

Claim 17 (currently amended): A The method according to claim ~~1~~ 21, wherein the electric arc ~~(15)~~ is newly ignited during the at least one mechanical adjustment process ~~(41)~~ as the desired distance ~~(32)~~ is reached.

Claim 18 (currently amended): A The method according to claim ~~1~~ 21, wherein ~~a~~ the at least one mechanical adjustment process ~~(41)~~ is carried out at the beginning of the welding process.

Claim 19 (currently amended): A The method according to claim ~~1~~ 21, wherein ~~a~~ the at least one mechanical adjustment process ~~(41)~~ is carried out at the end of the welding process so as to enable the adjustment of a defined distance ~~(32)~~ of the end of the welding wire relative to the workpiece ~~(16)~~ for the subsequent welding process.

Claim 20 (currently amended): A The method according to claim ~~1~~ 21, wherein the position of the welding wire determined during the at least one mechanical adjustment process ~~(41)~~ is transmitted to a robot control.

Claim 21 (new): A method for controlling a welding process using a melting welding wire comprising the steps of:

(a) igniting an electric arc;

(b) subsequently conducting welding, the welding being adjusted on the basis of several different welding parameters and controlled by at least one of a control device and a welding current source; and

(c) carrying out at least one mechanical adjustment process during the welding to determine the position of the welding wire using the welding wire as a sensor.